

## Claims

1. A pharmaceutical composition comprising an effective amount of cow urine distillate as a bioavailability facilitator and pharmaceutically acceptable additives selected from anticancer compounds, antibiotics, drugs, therapeutic and nutraceutic agents, ions and similar molecules which are targeted to the living systems.
2. A composition as claimed in claim 1 wherein, the cow urine distillate is used as bioavailability facilitator for anticancer therapy directly or in combination with anticancer molecules.
3. A composition as claimed in claim 1 wherein, the cow urine distillate is used in TB therapy including multi drug resistant tuberculosis in combination with isoniazid and other anti-tubercular agents.
4. A composition as claimed in claim 1 wherein, the cow urine distillate is used in antifungal therapy for fungal infections.
5. A composition as claimed in claim 1 wherein, the bioavailability facilitator helps in transferring the compound across the membrane and for better effectivity on the target site.
6. A composition as claimed in claim 1 wherein, the antibiotics are but not limited to fluoroquinolones like Nalidixic acid and others like Rifampicin, Tetracycline, amphilicin and similar compounds.
7. A composition as claimed in claim 1 wherein, the antibiotics, ions and similar compounds are isoniazid and hydrogen peroxide.
8. A composition as claimed in claim 1 wherein, the bioavailability facilitator helps the antibiotics and other molecules to act better on the target by increasing the effectivity.
9. A composition as claimed in claim 1 wherein, the antifungal agents are azoles, clotrimazole, mystatin, amphotericin and similar materials.
10. A composition as claimed in claim 1 wherein fungi covering infections are mycetial, candida, yeast or other fungicidal compounds.
11. A composition as claimed in claim 1 wherein, the living system are bacteria, fungi or any living cells.

12. A composition as claimed in claim 1 wherein the concentration of the cow urine (*Go-mutra*) distillate is in the range between 0.001  $\mu\text{l/ml}$  to 100  $\mu\text{l/ml}$ .
13. A composition as claimed in claim 1 wherein the cow urine (*Go-mutra*) enhances membrane permeability of molecules, drugs across the semi-permeable membrane and mammalian gut membrane, and is used for enhancing intestinal transport and transport of molecules across membranes of various biological functions.
14. A process of preparing powder (Gm-IV) from cow urine distillate, said process comprising:
  - a. mixing cow urine distillate with half the volume of methanol and extracting with hexane.
  - b. lyophilizing the hexane fraction (Gm-I) and testing for similar activity as that of cow urine (*Go-mutra*).
  - c. extraction of the aqueous fraction with ethyl acetate and lyophilizing the ethyl acetate fraction (Gm-II) and testing for similar activity as that of cow urine (*Go-mutra*).
  - d. further, extracting the aqueous fraction containing white precipitate with butanol and lyophilizing the butanol fraction (Gm-III) having pale yellow precipitate and testing for similar activity as that of cow urine (*Go-mutra*).
  - e. drying the remaining aqueous fraction containing white crystalline precipitate (Gm-IV) and testing for similar activity as that of cow urine (*Go-mutra*).
15. A process as claimed in claim 14 wherein, the lyophilized extract Gm-IV from cow urine distillate is devoid of typical cow urine distillate smell.
16. A process as claimed in claim 14 wherein, the lyophilized extract Gm-IV is having the following properties.

Color: White

Physical state: Solid Crystalline

Solubility: Water-soluble and mixtures containing water

Melting point: Above 400°C

Specific Gravity: 1.006

RF value in methanol: Chloroform (50: 50) phase: 0.65

17. A process as claimed in claim 14 wherein, starting cow urine distillate is having HPLC properties having two major peaks with retention time 5.334 and 11.310 min.
18. A process as claimed in claim 14 wherein, the lyophilized extract possess all the activities like that of the distillate at a concentration in the range of 0.1 to 100 µg/ml, with much more stability at room temperature and solubility in water.
19. A lyophilized bio-active product obtained from cow urine distillate which is having the following physical characters:  
Color: White  
Physical state: Solid Crystalline  
Solubility: Water-soluble and mixture containing water  
Melting point: Above 400°C  
Specific Gravity: 1.006  
RF value in methanol: Chloroform (50: 50) phase: 0.65
20. A lyophilized product as claimed in claim 19 wherein, the bio-active product GM-IV is devoid of typical cow urine distillate smell.
21. A lyophilized product as claimed in claim 19 wherein, the bio-active product is used at concentration 0.1 to 100 µg/ml, with much more stability at room temperature and solubility in water.
22. A lyophilized product as claimed in claim 19 is used to enhance membrane permeability of molecules, drugs across the semi-permeable membrane and mammalian gut membrane, and can be used for enhancing intestinal transport and transport of molecules across membranes of various biological functions.
23. A composition comprising an effective amount of bioactive lyophilized fraction obtained from cow urine distillate, which is used as a bio-enhancer and bioavailability facilitator and one or more nutraceuticals, antibiotic, anti-infective, anticancer agents.
24. A composition as claimed in claim 23 wherein the bioactive fraction has enhancing activity of anti-bacterial agents, anti-cancer agents and anti-tuberculosis agents by 2 to 80 folds.

25. A composition as claimed in claim 23 wherein the anti bacterial agents are selected but not limited to from the group comprising Quinolones, Rifampicin, tetracycline, ampicillin and other similar agents.
26. A composition as claimed in claim 23 wherein the anti bacterial agent is an anti-tuberculosis agent selected from isoniazid, pyrazinamide, ethambutol and other similar compounds.
27. A composition as claimed in claim 23 wherein the bioactive fraction has enhancing activity of anti- tuberculosis agents by 2 to 20 folds.
28. A composition as claimed in claim 23 wherein the anti-cancer agent is selected from group consisting of Paclitaxel (Taxol).
29. A composition as claimed in claim 23 wherein the bioactive fraction has enhancing activity of anti- cancer agents by 2 to 20 folds.
30. A new use of cow urine distillate as a bio-enhancer and bioavailability facilitator of one or more nutraceuticals, antibiotics, anti-infective and anticancer agents.
31. A use as claimed in claim 30 wherein the anti bacterial agents are selected from the group comprising Quinolones, Rifampicin, tetracycline and ampicillin and similar compounds.
32. A use as claimed in claim 30 wherein, wherein the anti bacterial agent is an anti-tuberculosis agent selected from isoniazid, pyrazinamide, ethambutol and other similar compounds.
33. A use as claimed in claim 30 wherein, the anti-cancer agent is selected from group consisting of Paclitaxel (Taxol).
34. A use as claimed in claim 30 wherein, the cow urine distillate is used as bioavailability facilitator for anticancer therapy directly or in combination with anticancer molecules.
35. A use as claimed in claims 1-34 wherein, the concentration of the cow urine distillate and lyophilized powder is very critical and increased amount above the upper limit may mar the effect/activity in formulation or administered dosage.